

CALFED Operations Group  
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**Winter-run chinook salmon:**

Overall the number of adult winter-run spawners in 2001 has increased over last year, however the number of adult females is only the third highest estimated at Red Bluff Diversion since 1986.

Preliminary data (subject to review) from CDFG:

	<u>2000</u>	<u>2001</u>	<u>Increase</u>
Aerial redd counts	576	1396	2.42
Red Bluff counts	1350	5523	4.08
Carcass Surveys	6670	10386-12190*	1.82

The high number of winter-run in the surveys this year includes a high number of 2-year old fish that will not contribute as much to reproduction as would the same number of 3-year olds.

Winter run chinook adults counted at Red Bluff Diversion Dam represented only 31% of the total observed, of the total 69% (3,827) were grilse (2-yr old salmon). Upstream carcass surveys also showed an increase over last year in the number of grilse (24% vs 2.7%).

\*Carcass Surveys used Peterson estimate to compare to previous years, other estimates used will be lower.

**Steelhead and Spring-run Chinook:**

Fish Salvage Facilities reported no salmon or steelhead loss or salvage this month. Mitten crab numbers are decreasing from 900/day last week to 300/day this week at the CVP and 160/day last week to 100/day this week at the SWP.

Spring-run chinook salmon:

Field surveys have been completed in Deer, Butte and Big Chico creeks. Mill Creek surveys will be conducted in October and reported as soon as possible. Estimates of adult spring run chinook salmon abundance are:

	<u>2001</u>	<u>Cohort Replacement Rate</u>
Deer Creek	1,622	0.9
Big Chico Cr	39	--
Butte Cr	9,605	0.5

The cohort replacement rate assumes a large, constant proportion of adults returning at age 3. Replacement rates  $>1.0$  indicate increasing abundance of the cohort. The cohort replacement rate of 0.5 for Butte Creek would generally be considered a poor outcome. However, 9,605 spring-run is the second largest return in recent decades. Although we do not have data on the age-structure for the Butte Creek population, we assume most of these adult salmon are age 3 and are the progeny of brood year 1998. In 1998 an extraordinary high, and perhaps unsustainable number of spring-run returned to spawn in Butte Creek.

American River water temperatures continue to remain high and may delay fall-run chinook salmon spawning this year. The American River Ops group is discussing options this Friday.